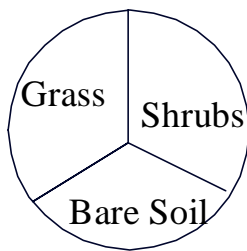




THE COVEY HEADQUARTERS

Volume 5 Issue 2 Summer 2006

This newsletter is aimed at cooperators and sportspeople in Missouri to provide information on restoring quail. This is a joint effort of the Missouri Department of Conservation, USDA-Natural Resources Conservation Service, University of Missouri Extension and Quail Unlimited. If you would like to be removed from this mailing list or have suggestions for future articles please contact jeff.powelson@mdc.mo.gov or 816-232-6555 x122 or write to the address shown.



The name of this newsletter is taken from an old concept.....that a quail covey operates from a headquarters (shrubby cover). If the rest of the covey's habitat needs are nearby, a covey should be present. We are encouraging landowners to manage their quail habitat according to this concept. Use shrubs as the cornerstone for your quail management efforts. Manage for a diverse grass, broadleaf weed and legume mixture and provide bare ground with row crops, food plots or light disking **right next to** the shrubby area.

Upland Wildlife Habitat Buffers (CP 33) Update

Kim Wells and Tony Elliott
Agricultural Systems Field Station, Resource Science Division, MDC

The fall of 2005 marked the first season of a five-year statewide evaluation of the Upland Wildlife Habitat Buffers (CP 33) Program that targets quail and grassland songbirds. Missouri is one of 20 states nationwide evaluating the CP33 practice. Last summer, MDC staff from the Agricultural Systems Field Station in Resource Science collaborated with the national CP 33 coordinating team from Mississippi State University and the Missouri and national offices of the Farm Service Agency (FSA) to obtain information on a sample of landowners enrolled in the program. The goal was to sample at least 40 fields enrolled in the program and the same number of "control" fields where no buffer was planted.

CP 33 Buffer Characteristics

Fields sampled this year were drawn from the pool of contracts that were enrolled statewide between the start of the sign up period in October of 2004 and July of 2005. The sample included 25 counties from five regions (Northwest, Northeast, Central, Kansas City, and Southeast), although the majority were in northern Missouri. The average CP 33 buffer in the sample was 8.8 acres and the range was 1 to 47.8 acres. The majority (75%) of the CP 33 buffers in the sample were planted with a native seed mix dominated by Little Bluestem, Sideoats Grama, and Indiangrass. Most of the buffers were still in the early stages of establishment with 58% (23/40 contracts) in the annual weeds stage with minimal amounts of grass cover for nesting.

Results

We recorded the number of quail coveys calling at each sampling location and then calculated a calling rate adjustment based on weather conditions and the number of coveys heard. This is an important step because we know calling rates vary by weather conditions and the abundance of other coveys, which may result in fewer birds calling than are actually present. Throughout this article, the number of coveys heard reflects the adjustment we made for the calling rates observed. Statewide, trends in the average number of coveys heard appeared similar between the control and enrolled fields (Figure 1), which is not surprising because most buffers were planted after the peak of nesting this year.

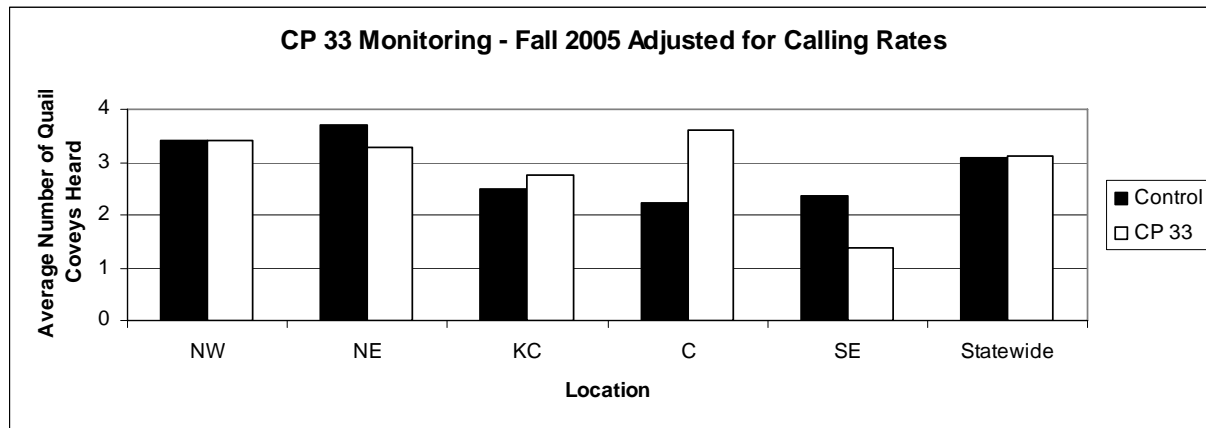


Figure 1. The average number of quail coveys heard on matched control fields ($n = 40$; black bars) and enrolled fields ($n = 40$; white bars) during the first season of sampling for the statewide evaluation of the CP 33 Program in MO.

The Northwest and Northeast regions had the highest number of coveys heard on average out of all the sampled regions. The largest differences during this establishment period were in the Central and Southeast regions. In Central region, the average number of coveys was 2.2 on control fields and 3.6 on enrolled fields. In the Southeast region, the average number of coveys was 2.4 on control fields and 1.4 on enrolled fields.

We did not expect changes in population size this fall because most buffers were not established long enough to provide nesting cover. In addition, monitoring population sizes over time will be especially important because some years have better weather than others, which influences the length and success of the breeding season. Preliminary reports from field staff indicate that CP 33 buffers may have provided brood rearing cover this fall, which explains the rapid discovery and movement into buffers by quail. This spring and summer, we will start breeding bird counts to continue documenting the response of quail and songbirds to the CP 33 program. We will report this information in the issues to come.

Missouri Quail Enthusiast's Get National Recognition

Quail Unlimited, in cooperation with the Southeast Quail Study Group, recently recognized Pat Graham, NRCS State Biologist in Missouri and the West Central Missouri Chapter of Quail Unlimited, Tom Lampe, Chairman for outstanding action in helping implement and promote the Northern Bobwhite Conservation Initiative (NBCI). The presentations were made at the seventy-first annual North American Wildlife and Natural Resources Conference in Columbus, Ohio.

Pat Graham's recognition focused on the work he undertook that helped incorporate quail-friendly habitat guidelines into several Farm Bill conservation programs resulting in the creation of several thousand acres of early succession wildlife habitat across the state of Missouri. Outstanding efforts related to personnel training on habitat management were also noted.

The West Central Missouri Chapter of Quail Unlimited was formed in 1993 and has been a statewide leader in work on the Missouri Quail Habitat Initiative. Since 2000, over 8,000 acres of wildlife habitat have been developed and maintained in a four-county area. The chapter also led a successful cooperative effort to develop a local NBCI Plan. They were selected to participate in a Conservation Partners Grant that resulted in a full-time Bobwhite Buffers Coordinator position that helped enroll over 130 landowners and 1,500 acres in CP33 in Cass County. This effort has made Cass County the top CP33 county in Missouri and they have won numerous habitat awards, including Quail Unlimited's top National Habitat winner.

Congratulations to both on outstanding work towards improving quail habitat across the state of Missouri!

Plants You Should Know: Birds Foot Trefoil – Another Invasive Non-native Plant.

Aaron P. Jeffries, Area Biologist, Jefferson City

Birdsfoot trefoil, (*Lotus corniculatus*), is a deep-rooted perennial legume introduced from Europe as a pasture forage and erosion control. It is also commercially sold as a deer forage under the name deervetch. The fruit of the plant resembles a bird's foot, hence the name.

Birdsfoot trefoil is easily identified May through October by its bright yellow pea-shaped flowers. It is commonly found along highways and in disturbed fields. Birdsfoot trefoil grows well in moderately wet to dry conditions. The plant reaches a height of 6 to 18 inches. Crown vetch (*Securigera varia*) is another invasive legume commonly found along highways and disturbed areas. Crown vetch has pink or white flowers that bloom in May and June. Like birdsfoot trefoil, crown vetch will out compete native vegetation.

Like many introduced perennial legumes, birdsfoot trefoil is aggressive and difficult to control in quality natural communities such as prairies and glades. Birdsfoot trefoil can be extremely aggressive in new warm-season grass and wildflower seedings. An example is a small wildflower and native grass planting across the highway from the entrance to the Runge Nature Center in Jefferson City. Over the past 3 years birdsfoot trefoil has slowly crept into the planting. Today, there is nothing but birdsfoot trefoil and a few resilient forbs and native grasses. The birdsfoot trefoil is so thick it creates a barrier to most wildlife species.

Birdsfoot trefoil can be controlled with broadleaf herbicides. In areas rich with forbs and legumes attempt to spot spray infestations since broadleaf herbicides will also kill native forbs. Apply herbicides May through July when the plants are actively growing for 3 consecutive years to control infestations. Mowing only promotes the plant. Burning and disking are generally ineffective.



USDA-NRCS PLANTS
Database / Britton, N.L.,
and A. Brown. 1913.
*Illustrated flora of the
northern states and
Canada. Vol. 2: 359.*

Did You Know???

CRP mid-contract management dates have changed to allow more flexibility –

Prescribed Burning – **Cool-season grasses** may be burned March 15 through April 30.
Warm-season grasses may be burned July 16 through March 15.

Strip Disking - Disk warm- and cool-season grasses July 16 through Dec. 31.

Chemical Application - **Cool-season grasses** may be sprayed Mar. 15 through April 30 or Oct. 1 to Dec. 1.
Warm-season grasses may be sprayed July 16 through Sept. 15.

Legume and wildflower interseeding – may be used in conjunction with the above practices. Participants are reimbursed 50% of the county average cost.

Cost share rates are \$7.00/acre for burning and disking and \$10.00/acre for chemical application. Visit your local FSA office if you have questions about CRP mid-contract management. While you are there, ask them about current soil rental rates. Most counties in Missouri changed their rental rates last December. Some rates went up while others went down. Mid-contract management practices will improve your CRP fields for quail and numerous grassland birds. Make sure you are edge feathering the woody draws and woodland edges adjacent to your CRP fields for maximum benefit. Several cost share programs exist to get the work done.

Summer Covey Headquarters Calendar

June

Begin spraying actively growing Johnson grass.
Mow newly planted native grass stands to a height of 6-8 inches for weed control.
Mow firebreaks to prepare for late summer and fall burns.
Peak of quail hatching is June 15.
Conduct breeding bird surveys now through June 30.
Plant native warm-season grasses in South Missouri by June 15.
Seed milo, millet, and forage sorghum food plots before June 30.
Plant native-warm season grasses in North Missouri by June 30.

July

Spray sericea lespedeza now through September.
Mow newly planted native grass stands a second time to a height of 6-8 inches for weed control.
Excessive June and July rains shifts peak quail hatch to August.
Disk CRP stands starting July 16.
Improve wildflower diversity by burning warm-season grass CRP starting July 16.
Apply herbicide to set back warm-season grass CRP starting July 16.

August

Till firebreaks to prepare for prescribed burns.
Mow or burn fescue to prepare for fall herbicide treatments.
Continue to treat sericea lespedeza through September.
Re-nests and second quail broods hatching – do not mow idle areas.

GRAND RIVER QUAIL UNLIMITED BLAZES NEW GROUND

After completing the required training, the Grand River Chapter of Quail Unlimited, Chillicothe, MO has become the first QU chapter nationwide to form an officially recognized Burn Team to conduct contracted prescribed burning. On October 30th, 2005 Burn Team members Eric Witt, Marty Rucker, Wayne Scott and Jason Sampsel completed their first contract burn on private property in Carroll County establishing another Quail Unlimited first.

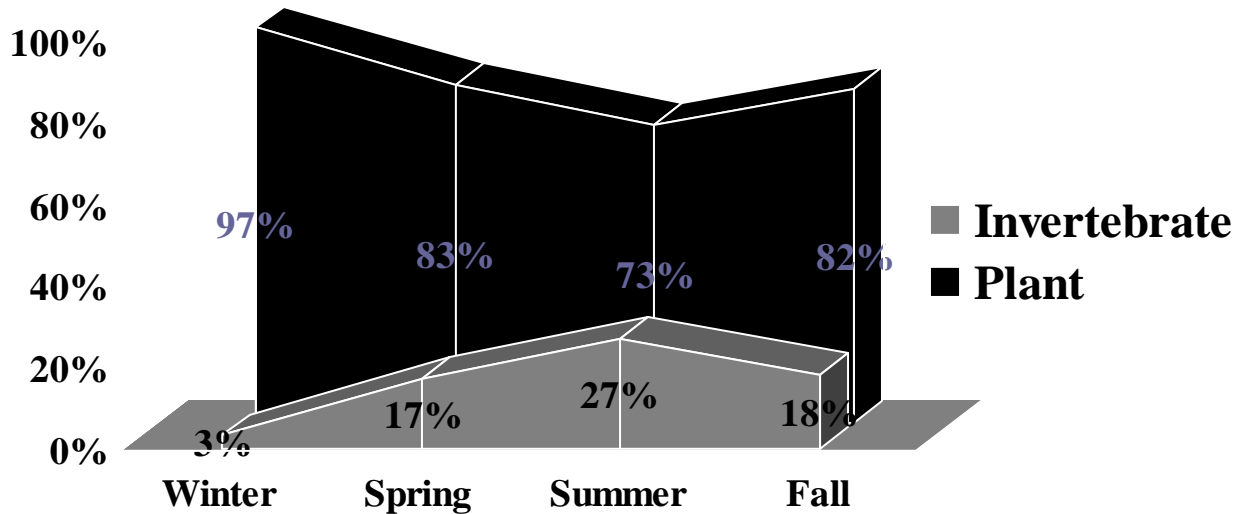
Approximately 100 acres, divided into 5 fields predominated by fescue, orchardgrass and redtop were burned that day. Cloudy conditions along with relatively high humidity and light winds made burning conditions difficult but persistence by the Burn Team resulted in a completed burn after a lengthy day. Speaking on behalf of the Burn Team, Eric Witt stated; "We had to really work to get the fire to move through the fields; having to strip some of the fields several times in order to advance the fire. In the end we accomplished a burn down of about 90% of the ground we intended to burn."

Missouri Department of Conservation Private Land Conservationist Lee Metcalf worked with landowner O.L. Houseworth in developing a quail management plan for his CRP ground. Houseworth's CRP is due to expire in 2007 so was not eligible for mid-contract management cost share through the FSA, however was eligible for CRP-BOB, a cooperative program between MDC and the Missouri Association of Soil and Water Districts that provides cost share assistance for CRP management and enhancement directed toward bobwhite quail and other grassland species. "My son Jack was actively involved in preparing the firebreaks and doing some chainsaw work to create shrubby cover in areas adjacent to the burns. Quail need protection and I like what you [Quail Unlimited and MDC] are doing", related Mr. Houseworth. "The job was done to my satisfaction; the guys worked hard all day and did a good job. I'm hoping they will be able to help with the other burns we have planned", concluded Houseworth.

The Grand River QU Burn Team would like to acknowledge the role of Lee Metcalf in helping coordinate their first burn. "He was instrumental in coordinating our work with the landowner and providing technical assistance and consultation. Lee is very knowledgeable and approachable and has a great passion for what he does", stated Eric Witt. The Grand River Chapter of QU can be contacted at 660-745-3140.

Quail Food By Season

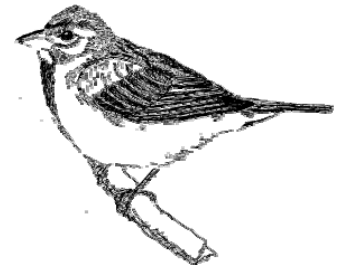
The graph below is a general representation of how quail diet changes through the season. Notice the heavy insect requirements in the summer. Quail chicks require 80-95% insects during their first few weeks of life. Commonly eaten insects include beetles, leafhoppers, spiders, grasshoppers, ants, crickets, stinkbugs, flies, and snails.



Conduct breeding bird surveys in June –

To get an index of quail that survived the winter and are available for breeding, listen for whistling bobwhite males for 1-2 hours after sunrise during June. Nesting by females is normally at its peak this month, so males are actively calling. Establish permanent listening stations throughout your farm. Establish the stations along ridges or in areas where you can hear a good distance. Whistling quail can be heard about 500 yards away, so listening stations should be spaced 1000 yards apart, or be separated by major chunks of woods or hills. Listen at each station for 3 minutes. Count and record the number of *individuals* you hear in that time span at each station. Be careful not to count the same individuals twice. If you listen every year within the same time frame, you can

track how well your birds are surviving winter in relation to your quail management efforts. Along with quail, be sure to listen for Henslow's sparrow, grasshopper sparrow, field sparrow, dickcissel, bobolink, pheasant, and meadowlark as these species respond positively to quail management. Visit the following website to hear audio call examples of several bird species - www.mbr-pwrc.usgs.gov/bbs/ident.html



Food Plot Quick Reference Guide – Broadcast over prepared seedbed

Single Species Plots

Milo
Forage Sorghum
Buckwheat
Corn
Soybean
Millets
Alfalfa
Wheat

Pounds/acre

6-8
8-10
30-40
16
25
20-30
10-15
50

Timing

May – June 30
May – June 30
May – June 30
April – June
April – June
Late May – June 30
Spring, Early Fall
Sept. – Nov. 1

Quail Unlimited's 'Flight to the Future' Convention Takes Off July 26-29 in Kansas City

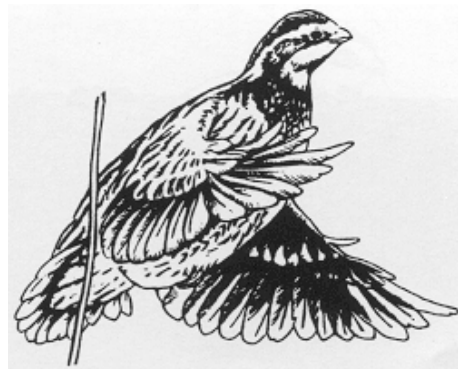
Quail Unlimited will host its annual National Convention in Kansas City, July 26-29, at the Westin Crown Center. The organization will be celebrating its silver anniversary as it commemorates 25 years of quail conservation and its successes as "America's Leader in Quail Conservation." Hundreds of chapter delegates from across the country will gather at the convention for a wide array of conservation seminars, workshops and award presentations. Some of the topics to be covered are herbicide use, prescribed fire, youth education and conservation programs, hunting preserve management and game bird production, and bobwhite basics. Various chapters and individuals will be recognized and presented awards for their outstanding achievements during the convention. The theme for this year's annual convention is "Flight To The Future".

For those delegates interested, there will also be a pre-convention habitat tour on July 26. The tour will feature the West Central Missouri chapter's habitat projects, including CP-33 field borders, CRP mid-contract management, edge feathering, woody vegetation control, prescribed burning, native grass plantings and other demonstration plots. The local chapter has won first place for national habitat three years in a row. For more information, visit <http://www.qu.org>, email <mailto:cdean@qu.org> or call Quail Unlimited at 803-637-5731.

CP33 enrollment in Missouri tops 12,000 acres!!!

Farmers in Missouri have stepped up to the challenge of establishing field borders around cropfield edges. Missouri has currently enrolled over 12,000 acres into the bobwhite buffers (CP33) program. This number changes daily as more folks enroll field borders before planting season begins. Top counties for enrollment include Cass, Saline, Audrain, Scott, Bates, Andrew, Vernon, Carroll, and Nodaway.

Landowners have done such an exceptional job that Missouri was awarded another 2,600 acres to enroll into the program. That makes 22,600 acres of wildlife friendly field borders around cropfield edges. This program will continue until Dec. 31, 2007, or until 22,600 acres are enrolled. Signup is continuous and CP33 offers a \$100 per acre signup bonus, up to 90% cost share to establish the buffer, and a yearly rental payment. Visit your local USDA service center to find out more about CP33 and other CRP practices.



Build it and they will come...

I have now been quail hunting for 50 years. I am still fit and able and thoroughly enjoy it. I have had the great privilege of marrying a north Missouri farm girl 45 years ago and at the time we got married, there were more quail on her family's land and other adjoining properties than you can imagine. It was a true paradise. Over the years, numbers tended to go down with occasional good years, but it was never like it used to be.

I have done some habitat work on the six different farms that we own. I am happy to report that during the 2005-2006 hunting season, I found 23 separate coveys on land that we own or on adjoining properties that I have permission to hunt. It was truly magnificent and you can't imagine how much I enjoyed it. My hunting partner and I left plenty of birds to produce next year's crop and will keep our fingers crossed for a good nesting season. I thoroughly enjoy your publication and ask that you please continue to send it to me. **Anonymous**

The Missouri Department of Conservation is studying quail and other grassland bird response to edge feathering in Gentry County. The project is in its 4th year. While field measuring some recent edge feathering on April 11th, I flushed a single quail, a pair of quail, and a covey of 4 quail. All quail flushed directly out of the edge feathering. Also of interest – a flock of turkeys and 5 deer were flushed from the edge feathering. It was a windy day and I think the edge feathering provided protection from the wind. In the next issue we will publish early results of quail covey counts and breeding bird surveys on our study sites. **Travis Dinsdale, Area Biologist, St. Joseph**

Quail's Eye View –

Take a look at the following ground level pictures of a CRP field. The picture on the right is an unmanaged CRP stand. The grass is thick and there is little wildflower and legume diversity. This stand is of little value to quail. It is too thick and there is no bare ground to allow the birds to walk through the CRP stand. The picture on the left is a managed CRP stand. This stand was burned in late summer. The CRP grasses are thinner and there are numerous wildflowers and legumes. Most importantly, there is bare ground. Your quail won't have any problems walking through a stand of grass like this. A thinner stand with more wildflower and legume diversity will attract an abundance of insects which are critical for chick survival. Think like a quail and start managing your quail habitat at ground level.



Managed CRP grass – promotes bare ground



Unmanaged CRP grass – too thick for quail use

Take care of your new shrubs

Weed control is essential for new shrub plantings. You can't plant shrubs in early spring and just walk away. You must help your shrubs along the first 2-5 years to assure a successful planting. One of the most effective ways of maintaining your shrubs is through the use of an herbicide. Herbicides are very effective at killing vegetation that will compete with your shrub planting. Pre-emergent herbicides will prevent grasses and weeds from growing for an extended period of time. Post-emergent herbicides are used to kill grasses or weeds after they begin growing.

Herbicides can be either selective or non-selective. Selective herbicides kill only certain families of plants, such as only grasses or only broadleaves. In shrub plantings, grass herbicides are generally used because grass (especially fescue) will compete with the shrubs for moisture. Non-selective herbicides will kill or damage any foliage the spray comes in contact with. Care should be taken when using a non-selective herbicide around shrubs since these herbicides can damage or kill seedlings. Visit your local agri-service dealer to get current information on herbicides or do a search the internet. Always read and follow herbicide labels before application.

The use of weed mats to suppress vegetation should be avoided when planting covey headquarter shrubs like wild plum, roughleaf and gray dogwood, sumac, false indigo bush, hazelnut, and blackberry. Weed mats will prevent spreading of these suckering type shrubs. If you have a lot of rabbits near your planting try shrub protectors. They do an excellent job of protecting shrubs from rabbit damage and are well worth the money.

Do not cut corners when it comes to yearly shrub maintenance. Spend a little time and effort each spring maintaining your shrubs. The more care in the early years, the faster your shrub planting will become a covey headquarter.

Did You Know???

The Missouri Quail Academy is a conservation training program for high-school students just completing their freshman or sophomore year. This year the week long academy will take place in two locations - Fayette on June 11-16 and in Warrensburg on June 18-23. Congratulations to the 50 students that have been selected to attend the academies this year. They will undergo training in quail biology, ecology, and human dimensions of wildlife conservation. To learn more about the Missouri Quail Academy and how you can participate if you are a student or teacher visit – www.mdc.mo.gov and do a Missouri Quail Academy search.

Mark Your Calendars

Quail Habitat Improvement Workshop

Quail Management Field Tour - Linneus, MO - Saturday May 13, 2006. For more information, contact Steve Fisher 660/258-5732 ext. 111.

2006 National Quail Unlimited Convention & Wildlife Expo

July 26 – 30, 2006 at the Westin Crown Center in Kansas City, MO. Help QU celebrate its 25th anniversary as America's leader in quail conservation. Visit www.qu.org/events for more details.



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